

## Iran architecture in Sassanid era

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**ABSTRACT:** Considering science and technology developments and spread of communities and high speed of information transition, it's necessary to become hamonized with world developments. This will be along with transition of cultures, behaviours, different thoughts and life styles. Some of the culture exchanges cause improvement and completing our national culture, but others are incompatible with our regional culture.

In addition to this, architecture is mixed with human life and usually related with culture, nature, world vision and thoughts of each nation every time. So we can consider it one of the best appearances of civilization and culture of each nation in any era.

Iranian architecture has followed bases and criteria, coordinating with culture, life style, climate, economy and human necessities. It's a question in today's mixed architecture of Iran, especially in large cities, that why our multi thousand yaer culture and civilization can't solve the problem of updating the architecture with it's rich background and special ideas.

Our country is one of the oldest civilizations of the world and there is architecture and stonecutting works belong to more than 7000 years before in several places in Iran, but multi thousand year history of Iran architecture is not studied well. Iranian architecture is divided in two parts: pre-Islam and post-Islam. Pre-Islam architecture belongs to Media, Achaemenid, Parthia and Sasanid eras.

This document will be along with getting acquainted with culture and art, specially architecture of iran in *Sassanid era*, and history, theory bases and physical features. Of course this bases and criteria are hamonized with our today understanding of *Sasanid* buildings and studies done done in this field.

**Keywords:** sasanid era, architecture, specialities

## **INTRODUCTION**

The Achaemenidae history and quality of Arians' governing from the beginning up to creating their dynasty as the largest imperia of the world by Kourosh Achaemenidae in 550 B.C. in Pars land is been cleared by researches.

But we have a little information after Alexander attack in 331 B.C. and defeat of 3rd Dariush Achaemenidae and the overthrow of that dynasty and division of the conquered lands of Alexander between his successors in Asia (Soloukian and after them Parthian and killing the 5th Ardavan (the last Parthian king).

By coming the Sassanian, the Persians again were appeared and the Parthians were overthrown by Ardeshir-E-Babakan the son of Sassan. The Sassanid dynasty was created in 224 A.C. by Ardeshir. He created the large minaret of brazier of the Mazdisna rule like Achaemenidaes and showed that the Sassanid believes were following the Persian religion, ceremonies and art of Achaemenidaes.

Ardeshir was the founder of city of Ardeshir-Khoreh (Firooz-Abad) as his capital and when he occupied Tisfoon, created a new town beside Solookieh named Veh-Ardeshir. These 3 towns (Solookieh, Tisfoon and Veh-Ardeshir) were called Madaen.

The art and the artists in Sassanid society, with a high class distinction have been restricted to the aristocrats and the courtiers. In such a society there weren't any social and humanity art that related to people and their life anymore. In this era, artistic works were influenced by Achaemenidae, Parthian and Greek art.

They were Zoroastrian and in this religion, respecting to the fire as a sign of life, shows it is the largest manifestation of the nature beside other elements of the nature like water and soil.

### **▪ Art and architecture of Sassanian:**

By establishment of powerful central government of Sassanian, they developed in architecture and urbaning. The remains of the cities in those era and the stone works in the mountains shows the attend to extend of the cities and the ways specially the connections of the roads, bridges and industries.

Although the Sassanid art was continuing the Achaemenidaes and the parthians art, but it had preferences over the past eras in stone works, plaster works and architecture specially in construction of domes, vaults and wide halls without column.

Sassanian that were raised from the Pars land, were relating themselves to Achaemenidaes (Persians). They were bounded to their religion and restore the Zoroastrian rules with sanctifying the nature. The sun, as the first symbol and fire and water in next position were holy. Art and architecture were appearances of their believes. Most buildings in this era were in a huge scale with forms that were showing the power and greatness.



*Fig.1- Sassanid fabric*

The decorations after Achaemenidaes were developed and became luxurious. The plaster works were done separately from the architecture and natural forms were spread in architecture decorations of fabrics and other arts. (fig. 1)

### ▪ Sassanid urbaning

Ardeshir founded the city of Goor (Firooz-Abad or Ardeshir-Khoreh) like Parthian cities in a circular form. After becoming powerful, he constructed many cities such as Veh-Ardeshir and Tisfoon.

The form of cities in this era changed from concentric and radial into checkered little by little.

#### ✓ Firooz-Abad:

The remains of a circle form city by Parthian rules are founded in Firooz-Abad. This city, first was called Ardeshir-Khoreh. The radius of the city was about 450 meters and the governmental buildings were located in the center of the city.

The buildings were constructed by stone and plaster. The large minaret of Firooz-Abad (approximately in 30 meters height) which was the place of fire, created in center of city in order to show their believes. This minaret was one of the first towers which were made and later it was a model in whole Islamic architecture. It also was a rememoration of brazier of Naghsh-e-Rostam in Achaemenidaes era and the Persian religious ceremonies in a high and wide place. It's considerable that in Zoroastrian rules, contrary to Mazdisna's the fire should be under a shade and the sunlight shouldn't shine to it and the holy rain water shouldn't pour it too. This city had a circle wall around, four gates and a moat around the wall. This defensive method was seen in most cities at the beginning of sassanid dynasty.

### ✓ Bishapoor

An other important Sassanid city was Bishapoor which was 140 km far from Shiraz and 23 km far from Kazeroon. It was founded in 266 A.C. by shapoor (son of Ardeshir). This city was along with the road which connected Firooz-Abad to Tisfoon and had a strategic commercial and military position.

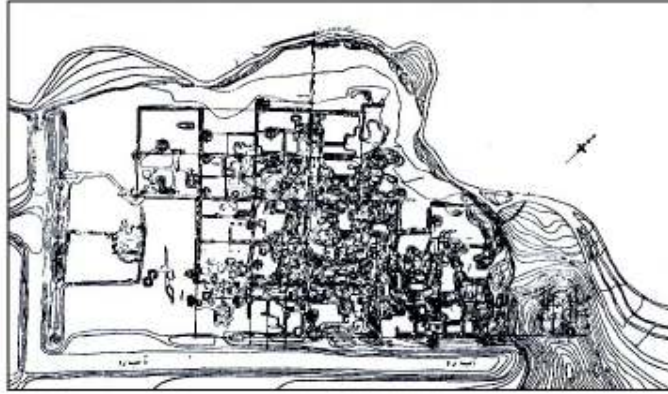
Before creating Bishapoor, the cities were in a circle form like Parthian cities. Bishapoor was the first model of Sassanid city which made in a rectangular form and checkered network. (fig. 2)

The city had a tall and thick wall around. Ghale-Dokhtar castle was overlooking to the city from the east. There was a moat around the wall which water flowed in it.

In middle of city two long northern-southern and eastern-western streets which were perpendicular to each other and intersect at the middle of the city. Important buildings and spaces, temples and mosaic-veranda were located there. One of the Anahita temples was in this city. In addition to the Sassanid works there were works from the beginning of Islam too.

The houses of the aristocrats were located in green areas. Private places and the residences of the courtiers were located in the north of city and most parts of establishments, administrations, public residential zone and working places were on the south.

Comparing between houses of public (which were made of plaster of clay and straw) and huge palaces shows the class distinctions in the society. The formal buildings were manifestation of power and splendour of the court when the Achaemenidae halls with columns and high Parthian verandas were changed into huge and splendid Sassanid domes and were symbol of politic goals. (fig. 3 & 4)



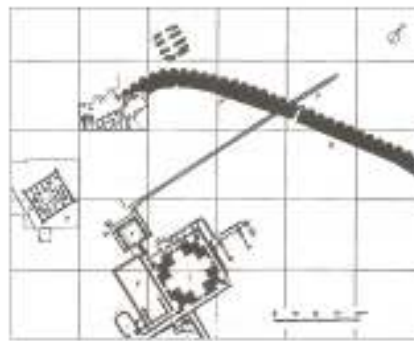
*Fig. 2- map of Bishapoor*



*Fig. 3- remains of Bishapoor*

*Fig. 4- founded places in Bishapoor*

- 1- hall
- 2-Anahita temple
- 3-Mosaic veranda
- 4-Mosque from Islamic era
- 5-towers
- 6-canal



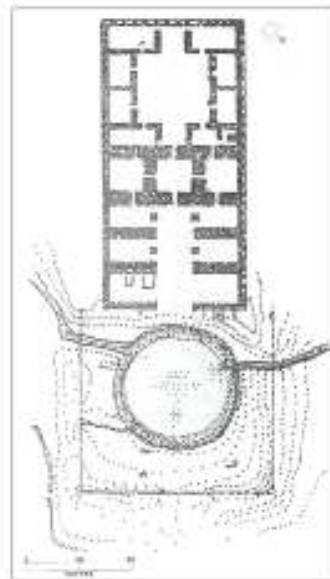
## ▪ Sassanid architecture

### ✓ Firooz-Abad Palace

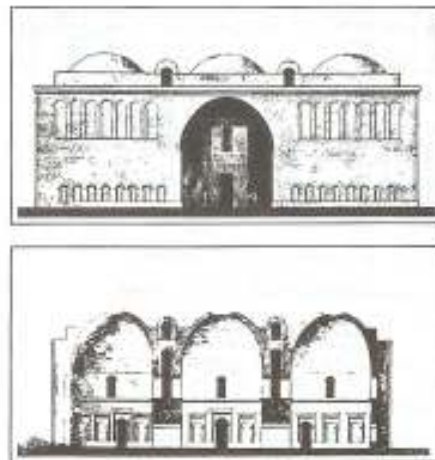
This building by 104×55 square meters area was made of stone and plaster mortar and the thickness of the walls was up to 4 meters somewhere. The external façade of the building had vaulted decorations which created in rectangular borders by semicircular arches. Ardeshir Palace in Firooz-Abad had a symmetrical plan. The entrance of the rooms was from the original veranda on the north.

This building was constructed on a cut surface and there were stairs on all four sides. There was a mineral water fountain in circle form at the lowest point. This palace is a sample of Sassanid palaces which was imitated in next centuries.

This building had specifications such as techniques for creating a spherical dome on a square plan for the first time in Sassanid architecture. In that time the dome was created just on the buildings by circle or octagonal plans in Rome. (fig. 5,6)



*Fig. 5- Firooz-Abad palace and fountain*



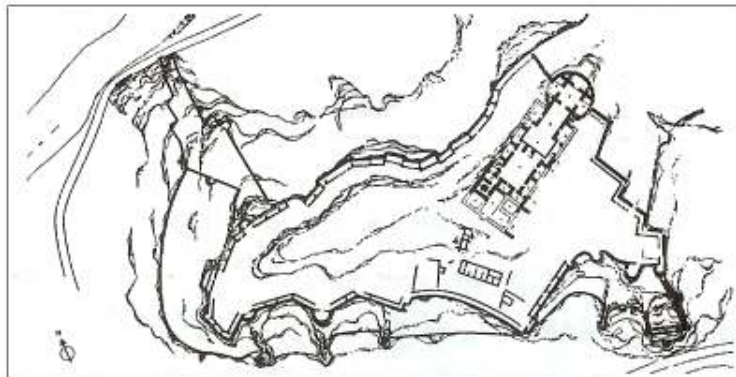
*Fig.6-elevation and section of Firooz-Abad palace*

## ✓ Ghaleh-Dokhtar in Firooz-Abad

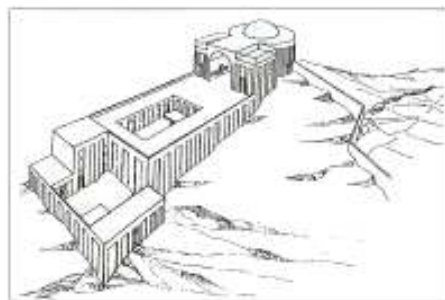
Ardeshir constructed ghale-Dokhtar like a castle as founding Firooz-Abad. This castle had a steep from 3 sides. At the pick of it on the highest point it had a veranda, a dome and two towers which had stairs that go up and terminated to large vaulted rooms created around court of the central veranda.

The original castle was located above these rooms had a large veranda with a curve roof, square rooms by a huge dome. The towers made variety in the monotone walls. This castle was made of large natural stones and plaster mortar the walls were thick specially around the dome.

It's clear that Ardeshir built it in a hurry, but the splendour was attended which was fulfilled. (fig. 7 & 8)



*Fig.7- Ghaleh-Dokhtar plan*



*Fig.8- drawn perspective of Ghaleh-Dokhtar*

### ✓ Tagh-e-Kasra

Tagh-e-Kasra is one of the best rememoriations of Sassanian in Tisfoon (today's Iraq). This great building might be constructed by 1st Shapoor. Its veranda was built by Iranian golden proportions by 25 meters width, 30 meters height and 50 meters depth. There are many vaults in a low depth just for decoration on the façade that emphasize greatness of the building and also stabilize the monotony and roughness of it.

This building was created for representing the greatness and power, and today, just one of four walls surrounding the central court is remained.

Its veranda wasn't only a great entrance, but had a heavy brocade curtain with different images. There was the famous carpet of "Baharestan" in the main hall which was made by silk and gold and had thousands of jewels on it that Arabs teared apart it. (fig.9)



Fig.9- entrance veranda of Tagh-e-Kasra

### ✓ Bishopoor Hall

This hall was in south east of Anahita temple in a 781 square meters space and had specialities for the first time in Sassanid architecture. The plan of this palace was cruciform by 16 sides and was a model for many fire temples. In Islamic era it was the source of four verandas buildings. (fig. 4) It had 4 symmetrical verandas and had a dome with 25 meters height. The hall was connected to the surrounding porches by 4 doorways. The hall had decorations by plaster and mosaic. The first signs of Moaragh-tiles were seen in this building. (fig.10)



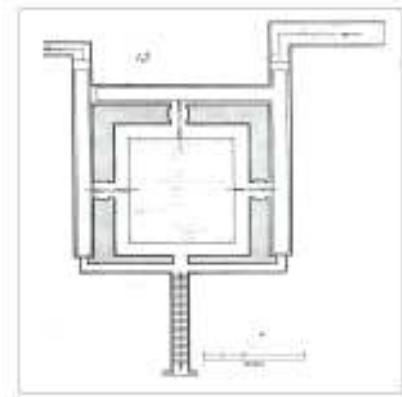
Fig.10- reconstructed mosaic veranda, Bishopoor



### ✓ Bishapoor Anahita Temple

In Zoroastrian rules, Anahita is the symbol of water. This building was a cube with sides in 14 meters length which made of different sized stone without mortar. It had an entrances in each side. On the northern façade there were 4 cow sculptures that were symbol of the temple beside decorating.

It was made 6 meters lower than beside ground, because they wanted the river water flowed into the temple. (fig. 11)



*Fig.11-Anahita temple-Bishapoor*

### ✓ Chahar-Ghapi

Fire temple is the place of protecting the fire and performing the religious ceremonies and blessing. Before Sassanian (in Achaemenidaes era) fire was created in open spaces on high platforms. After collection of Zoroastrian rules in 4 A.C. and because of their believes about preventing the sunshine from the fire, the fire temples were created under a shade in form of a building with 4 doors in direction of south, north, east and west. They were usually in form of Chahar-Taghi and the more important ones had a circumambulation corridor around.

Chahar-Ghapi fire temple was created in this era in Ghasr-e-Shirin and had a circumambulation corridor in 25×25 square meters with a dome by 16 meters height. (fig.12)



*Fig.12-remained of Chahar-Ghapi*

### ✓ Takht-e-Soleiman

Azar-Goshnasb fire temple was the most important one in Sasanid era, it's told that Zoroaster was born there. There was one of the most famous historical buildings, because of large costs of construction and equipments. (fig. 4) this

collection was lost its briskness up to Islamic era and in politic and economic actions started again in Ilkhanian era. The foundation of the building, platform and the walls were created by stone and later brick was used there. Plaster and tile-works were added to it in Ilkhanian era. (fig.13)

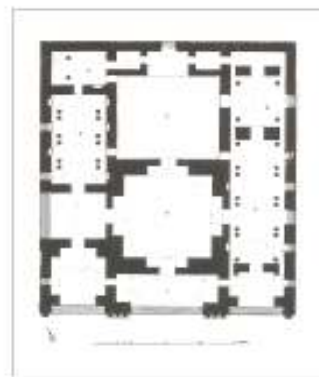


*Fig.13- Takht-e-Soleiman*

### ✓ Sarvestan Palace

Sarvestan Palace was located 9 km length from Jondi-Shapoor (near Shiraz). This building was in a large garden. Its plan was like Firooz-Abad Palace. The main hall was more sumptuous. Its construction time might be 2 centuries after Firooz-Abad Palace in 5 A.C. Its dome was made with baked brick but in Firooz-Abad just stone has been used.

The central hall had a dome and other spaces had barrel vault. (fig. 14 & 15)



In

*Fig.14- drawn perspective of Sarvestan Palace* *Fig.15- plan of Sarvestan Palace*

Sassanid era stone works were developed as compared with last eras. Most of them were related to the kings' wars, hunting and entertainments of them.

In this era, gardens were as the Iranian models around or beside all important buildings.

## CONCLUSION

### **specialities of Sassanid architecture:**

Great researchers of Iran were presented continuance, stability, aesthetic, following the rules and believes as the most specialties of Iranian architecture. In each era, experiences of the last era's art and architecture were obtained and some elements were added to it in order to complete it.

Remained buildings of Sassanid era because of local and climatic specialties are different from each other, so single standards can't be expressed for all of them. Also during 4 centuries of Sassanian governing, there were many changes specially in construction techniques like domes and vaults.

In Mesopotamia, brick was used for creating dome and roof because of shortage of stone and wood.

The most usual specialties of Sassanid architecture are:

- Sassanian by relating themselves to Achaemenidaes and Persians and by intriguing the sense of nationalism and religiosity of the people tried to absorb their trust.
- The first model of urbaning in checkered network was innovated in this era.
- Like other arts, architecture was in service of kings and aristocrats, so any public art were rarely remained.
- The amount of large columns was decreased because of the new methods of domes and vaults construction.
- The vaults were made in semicircular or horseshoe form without a sharp point.
- Creating circle dome on the square plan was expanded.
- Most of the important buildings were huge and splendid, they wanted to show the power of the government in this way.
- Because of symmetricality of the buildings, usually there was a powerful axis.
- Most of the important buildings were created on sloped ground because of security and defensive matters.
- The most important part of the building was located in the highest point.
- Most of the times there was a lake or pool usually in a circle form in the lowest point of the building.
- Most of the Sassanid buildings were created on a platform.

- Most of the buildings were introvert and a central rectangular court was the communicator of different spaces.
- Water is represented in most places of the buildings because of its holiness.
- There was a garden around most of the Sassanid buildings with the primary specialties of Iranian garden.
- The connection of the spaces in Sassanid architecture was simple and clear

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